WO 03/056877 PCT/SE02/02375

Claims

An arrangement for fastening electric heating elements in a furnace in which objects are to be heated, wherein the furnace wall includes a furnace insulation (4) comprised of high grade brick, and wherein the heating zones (6) of respective electrical heating elements (2) are placed vertically and parallel with the inner surface of the furnace wall in operation, characterised in that the electric leads or conductors (7, 8) of each heating element (2) are mounted in a cassette (9) and extend in channels (10. 11) provided therein; in that the heating zone (6) of the heating element projects out and defines an angle with the longitudinal axis of the cassette (9); in that the furnace insulation (4) includes for each cassette (9) a hole (12) which is larger at its outer end than at its inner end, therewith enabling the cassette (9) to be rotated in a vertical plane as the heating zone (6) of the element is inserted through the hole (12) and into said operating position parallel with the furnace wall; and in that a wedge-like body (13) is provided whose shape corresponds to the shape of the empty space created by the shape of the hole (12) and located between the hole (12) and the cassette (9) when the cassette is placed in said operating position in the hole, said body (13) being placed in said empty space during operation.

20

5

10

15

- 2. An arrangement according to Claim 1, **characterised** in that said angle is between 30 and 60 degrees.
- 3. An arrangement according to Claim 1 or 2, characterised in that each cassette (9) is elongate and has a generally rectangular cross-section.
 - 4. An arrangement according to Claim1, 2 or 3, characterised in that the furnace insulation (4) and the cassettes (9) are comprised of high grade brick, such as aluminium oxide brick.

30

5. An arrangement according to Claim 4, characterised in that said body (13) is comprised of high grade brick, such as aluminium oxide brick.

WO 03/056877 PCT/SE02/02375

- 6. An arrangement according to Claim 1, 2, 3, 4 or 5, characterised in that said hole (12) has a generally rectangular cross-section.
- 7. An arrangement according to Claim 6, characterised in that the hole (12) has a horizontal underside, parallel vertical side edges, and an upper side that defines an angle with the horizontal plane.
 - 8. An arrangement according to Claim 7, characterised in that the cassette (9) is in abutment with the upper side of the hole (12) in operating position; and in that the body (13) is inserted beneath the cassette (9).

10

15

9. An arrangement according to any one of the preceding Claims, characterised in that the furnace includes a process tube (3) in which objects are intended to be heated, wherein a space (5) is formed between the process tube and the furnace insulation, and wherein the heating zones (6) of respective electric heating elements (2) are located in said space (5) parallel with the outer surface of the tube during operation.